

REMARKS

The last Office Action has been carefully considered.

It is noted that claims 1-5 and 7-12 and 20 are rejected under 35 U.S.C. 103(a) over the U.S. patent to Goldfine, et al.

Also, the claims are objected to.

In connection with the Examiner's objection to the amendatory insert made in the Amendment of June 28, 2006, the amendatory insert has been amended as required by the Examiner.

In connection with the Examiner's objection to claim 1, lines 6 and 7, it is respectfully submitted that this part of claim 1 should be considered as clear. Claim 1 defines, in this part of the claim, it is defined that a value and a phase of a complex resistance are measured, since only these variables are accessible for measurement. On the other hand, it is correct that the real and imaginary components (x and y) of the complex resistance Z are determined from the amount Z and the phase ϕ of the complex resistance can be determined in accordance with the following formula:

$$Z=x+i*y=|Z|*e^{i\varphi}$$

Since the real and the imaginary components of the complex resistance can not be directly measured, it is believed that the current language of claim 1 in lines 6 and 7 should be considered as accurate.

Turning now to the Examiner's rejection of the claims over the art, it is respectfully submitted that the U.S. patent to Goldfine, et al applied by the Examiner has a filing date of August 20, 2002, while the present application claims its priority from February 21, 2002. It is believed that therefore the rejection based on 35 U.S.C. 102(b) should be considered as not applicable with respect to the claims.

At the same time, it is respectfully submitted that this reference does not teach the new features of the present invention which are defined in the independent claims 1 and 20. In column 5, and in particular lines 12 and 13, 18-24, 26-35 of this reference the MWM sensor is an inductive magnetostatic sensor, as explicitly explained in column 4, lines 41-43 of the reference. This sensor is not however a capacitive sensor.

The Examiner's arguments with respect to claims 2-5 and 7-12 also are not convincing.

It should be emphasized that none of the references discloses a measuring signal which is measured as a function of a lateral displacement of the sensor as defined in claim 20. The functional cooperation between the measuring signal and the lateral position of the sensor provides that the accurate lateral function is known reproducibly. A measuring value is associated with each location point in functional cooperation. This requires in particular the measurement from the location coordinate. The measuring device and method in accordance with the present invention therefore is based on a displacement sensor which measures the path covered by the measuring device. No system disclosed in the prior art can measure the instantaneous position of the detector and thereby a measuring value associated therewith. Therefore it is believed that claim 20 should be considered as patentably distinguishing over the art and should be allowed.

As for the Examiner's rejection of the claims over the patent to Goldfine, it is respectfully submitted that a plain statement that the features of the present invention can be considered as known from the prior art or can be considered as obvious modifications, is not justified. No arguments are presented why the new features of the present invention can be derived from the prior art. It is therefore believed that the Examiner's rejection over claims 13-15 and 17-19 should be considered as not tenable.

The Examiner's attention is respectfully directed to the second paragraph on page 14 of the specification in which it is stated that in order to determine lateral position, the capacitive measuring device can be moved across the medium to be analyzed in two opposite direction, and the corresponding path sensor forwards the current position of the capacitive sensor device to the digital signal processor to permit the correct depiction of the depth and lateral position of the object. It is also stated in the second paragraph on page 7 that when the measured signal is measured and evaluated in the inventive method as a function of a lateral displacement of the sensor device that is generating the detection signal, moving the capacitive sensor device across the enclosing medium enables signal evaluation that is correlated to location.

Claim 20 has been amended to define these features. These features are not disclosed in the references and can not be derived from them as a matter of obviousness, and therefore claim 20 should be considered as patentably distinguishing over the art and should be allowed for this reason.

At the same time, it is respectfully submitted that this reference does not teach the new features of the present invention as defined in the independent claim 1.

The Examiner's attention is first directed to the features of claim 21.

On page 26 it is specifically stated that the measured result is displayed graphically on the display of the measuring device, by depicting the position of the located object relative to the current position of the measuring device, so that the object size and the object depth are depicted on the display device of the measuring device using symbols in such a manner that the operator is provided with a cross-sectional representation of the analyzed wall. It is also possible to display graphically for example a permissible drilling depth that is possible without contacting the located object during drilling. The depiction of the measured results of the display of the measuring device takes place in real time, so that the located object is depicted on the display of the inventive measuring device with a minimum time delay, even while the measuring device is still being moved across a section of the wall.

These features are defined now in claim 21, and they are not disclosed in the prior art applied by the Examiner. Claim 21 should also be considered as patentably distinguishing over the art and should also be allowed.

The Examiner's indication that claims 6 and 16 were allowed has been gratefully acknowledged. In connection with this indication, these allowable claims have been retained as they were.

Reconsideration and allowance of the present application is most respectfully requested.

Should the Examiner require or consider it advisable that the specification, claims and/or drawings be further amended or corrected in formal respects in order to place this case in condition for final allowance, then it is respectfully requested that such amendments or corrections be carried out by Examiner's Amendment, and the case be passed to issue. Alternatively, should the Examiner feel that a personal discussion might be helpful in advancing this case to allowance, he is invited to telephone the undersigned (at 631-549-4700).

Respectfully submitted,

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